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10/800,106	03/12/2004	Salman Yousef Abbasi	2003-0113	8930

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EXAMINER	
LIU, BEN H	

ART UNIT	PAPER NUMBER
2464	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/800,106	ABBASI ET AL.	
	Examiner	Art Unit	
	BEN H. LIU	2464	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 March 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6,8-18 and 20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-18 and 20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. This is in response to an amendment/response filed on March 11th, 2010.

2. Claims 1-6, 8-18, and 20 have been amended.

3. Claims 7 and 19 were previously cancelled.

4. No claims have been added.

5. Claims 1-6, 8-18 and 20 are currently pending.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various

claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 1-6 and 8-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tonnby et al. (U.S. Patent Application Publication 2005/0190775) in view of Krause et al. (U.S. Patent 5,590,285).

For claim 1, Tonnby et al. disclose a method, comprising:

receiving, at a media access controller (MAC), a first request for a connection from a requesting agent *(see paragraphs 57-58 and figure 2, which recite an Administrative Unit AD1 that receives a request for a connection between user U11 and service provider SP1)*, the first request having a quality of service parameter *(paragraph 106, which recite a connection request that includes bandwidth and QoS attributes)*;

sending to a dynamic host configuration protocol (DCHP) server a second request for one of a plurality of network addresses using one of first and second MAC addresses associated with the MAC based on the quality of service parameter *(see paragraphs 62, 102-106 and figure 10, which recite sending a DHCP request that uses the assigned MAC address SAMAC1 address to allocate IP addresses for the connection, wherein the SAMAC is chosen based on the selected service, which in turn is defined by QoS attributes)*;

receiving a network address in accordance with the second request *(see paragraph 62, which recite a service agent SA1 that allocates IP addresses according to the DHCP request)*; and

sending the received network address to the requesting agent to establish the connection in accordance with the first request *(see paragraph 62, which recite sending a DHCP response that include the allocated IP addresses associated with the previously assigned MAC address)*.

Tonnby et al. disclose all the subject matter of the claimed invention with the exception wherein the QoS parameter of the first request specifically indicates one of a multimedia connection and a data connection and the second request for a network address specifically comprises retrieving the quality of service parameter from the first request; sending the second request for a first network address using the first MAC address if the quality of service parameter indicates a multimedia connection; and sending the second request for a second network address using the second MAC address if the quality of service parameter indicates a data connection. However, Krause et al. from the same or similar fields of endeavor discloses a network station with multiple network addresses *(See abstract and column 4 lines 30-40)*. The station uses a separate, unique MAC address and data channel for multi-media connection including video and audio data *(see column 25 lines 25-60 and figures 15-16)*. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement the system for using a unique MAC address for multimedia data as taught by Krause et al. with the access system that requests a network address using the assigned MAC address as taught by Tonnby et al. By using a uniquely assigned MAC address for multimedia data, the request for a network address uses a first MAC address for multimedia connection or a second MAC address for other

data connections. The motivation for implementing the network station that uses a separate, unique MAC address and data channel for multi-media connection as taught by Krause et al. with the access system as taught by Tonnby et al. is to improve the efficiency of the system by using data channels to multimedia modules to that reduces software overhead.

For claim 2, Tonnby et al. discloses a method of allocating network addresses wherein each network address from the plurality of network addresses comprises a network address for a different network *(see figure 2, which recite the ACC1 that provides addresses for service providers SP1 to SPn)*.

For claim 3, Tonnby et al. discloses a method of allocating network addresses wherein a first network address from the plurality of network addresses comprises a network address for a private network, and a second network address from the plurality of network addresses comprises a network address for a public network *(see paragraph 104, which recite providing service bindings to different networks including both public and private networks)*.

For claim 4, Tonnby et al. discloses a method of allocating network addresses wherein the connection comprises a multimedia connection *(see paragraph 101, which recite providing access to video-on-demand servers, telephony gateways, game servers, proxy access to other networks, and backup file service providers)*.

For claim 5, Tonnby et al. discloses a method of allocating network addresses wherein the multimedia connection comprises one of a voice connection, video connection and audio connection *(see paragraph 101, which recite providing access to video-on-demand servers, telephony gateways, game servers, proxy access to other networks, and backup file service providers)*.

For claim 6, Tonnby et al. discloses a method of allocating network addresses wherein the connection comprises a data connection *(see paragraph 101, which recites providing access to video-on-demand servers, telephony gateways, game servers, proxy access to other networks, and backup file service providers).*

For claim 8, Tonnby et al. discloses a method of allocating network addresses wherein the second request is a dynamic host configuration protocol (DHCP) request *(see paragraph 62, which recite a second request that comprises a DHCP request FR2 that uses the previously assigned MAC address SAMAC1 address to request an IP address for the client).*

For claim 9, Tonnby et al. discloses a method of allocating network addresses wherein the sending the second request comprises sending the dynamic host configuration protocol request to a DHCP server and receiving the network address from the DHCP server *(see paragraph 62, which recite a service agent SA1 that responds to a DHCP request by allocating an IP address IPUD11 to the user device UD11).*

For claim 10, Tonnby et al. disclose an apparatus, comprising:

a media access controller (MAC) having a plurality of MAC addresses *(see paragraphs 57-58 and figure 2, which recite an Administrative Unit AD1 that assigns MAC addresses from a plurality of MAC addresses)*, and

a requesting agent to connect to the MAC, the requesting agent to send a first request for a network address *(see paragraphs 57-58 and figure 2, which recite the Administrative Unit AD1 that receives a request for a network address to establish a connection between user U11 and service provider SP1)*; and

a driver module to send a second request to a dynamic host configuration protocol (DHCP) server, the DHCP to connect to the MAC *(see paragraphs 62, 102-106 and figure 10, which recite sending a DHCP request that uses the assigned MAC address SAMAC1 address to allocate IP addresses for the connection, wherein the SAMAC is chosen based on the selected service, which in turn is defined by QoS attributes).*

Tonnby et al. disclose all the subject matter of the claimed invention with the exception wherein the driver module specifically receives the first request and determine whether the first request is for one of a multimedia connection or data connection, the driver module to instruct the MAC to send a second request for a first network address using a first MAC address if the first request is for a multimedia connection, and to send a second request for a second network address using a second MAC address if the first request is for a data connection. However, Krause et al. from the same or similar fields of endeavor discloses a network station with multiple network addresses *(See abstract and column 4 lines 30-40).* The station uses a separate, unique MAC address and data channel for multi-media connection including video and audio data *(see column 25 lines 25-60 and figures 15-16).* Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement the system for using a unique MAC address for multimedia data as taught by Krause et al. with the access system that requests a network address using the assigned MAC address as taught by Tonnby et al. By using a uniquely assigned MAC address for multimedia data, the request for a network address uses a first MAC address for multimedia connection or a second MAC address for other data connections. The motivation for implementing the network station that uses a separate, unique MAC address and data channel for multi-media connection as taught by Krause et al. with the

access system as taught by Tonnby et al. is to improve the efficiency of the system by using data channels to multimedia modules to that reduces software overhead.

For claim 11, Tonnby et al. discloses an apparatus that allocates network addresses wherein the driver module sends the first or second network address to the requesting agent to establish the connection in accordance with the first request *(see paragraph 64, which recite transmitting the allocated AMC address SAMAC1 to the user device UD11).*

For claim 12, Tonnby et al. discloses an apparatus that allocates network addresses wherein the requesting agent comprises part of a multimedia module *(see paragraph 57, which recite sending a connection request using a telephone call).*

For claim 13, Tonnby et al. discloses an apparatus that allocates network addresses wherein the multimedia module comprises a multimedia terminal adapter and analog telephone *(see paragraph 57, which recite sending a connection request using a telephone call).*

For claim 14, Tonnby et al. discloses an apparatus that allocates network addresses wherein the multimedia module comprises at least one of a packet telephone, video equipment and audio equipment *(see paragraph 101, which recite providing users access to video-on-demand servers wherein the user equipment must include video and audio equipment to utilize the service).*

For claim 15, Tonnby et al. discloses an apparatus that allocates network addresses wherein the requesting agent comprises part of a data module *(see paragraph 101, which recite providing users access to file backup service providers wherein the user equipment must include a data module to utilize the service).*

For claim 16, Tonnby et al. discloses an apparatus that allocates network addresses wherein the data module comprises one of a computer, server and workstation *(see paragraph 2, which recite a virtual LAN such as those connected by ACC1 that comprises computers that communicate with each other)*.

For claim 17, Tonnby et al. discloses an apparatus that allocates network addresses further comprising a dynamic host configuration protocol (DHCP) server to connect to the MAC the DHCP server to receive the second request *(see paragraph 62, which recite a service agent SA1 that receives a second request that comprises a DHCP request FR2 that uses the previously assigned MAC address SAMAC1 address to request an IP address for the client)*, retrieve one of the first network address and second network address from a DHCP table, and send the retrieved network address to the MAC *(see figure 7 and paragraph 62, which recite retrieving network address SAMAC1 from table TAB1)*.

9. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tonnby et al. (U.S. Patent Application Publication 2005/0190775) in view of Krause et al. (U.S. Patent 5,590,285) and further in view of Chiang et al. (U.S. Patent 5,835,725).

For claim 18, Tonnby et al. disclose a method, comprising:

A computer readable medium storing computer executable instructions, the computer executable instructions defining steps comprising:

receiving, at a media access controller (MAC), a first request for a connection from a requesting agent *(see paragraphs 57-58 and figure 2, which recite an Administrative Unit AD1 that receives a request for a connection between user U11 and service provider SP1)*, the first

request having a quality of service parameter *(paragraph 106, which recite a connection request that includes bandwidth and QoS attributes)*;

sending from the MAC to a dynamic host configuration protocol (DCHP) server a second request for one of a plurality of network addresses using one of first and second MAC addresses associated with the MAC based on the quality of service parameter *(see paragraphs 62, 102-106 and figure 10, which recite sending a DHCP request that uses the assigned MAC address SAMAC1 address to allocate IP addresses for the connection, wherein the SAMAC is chosen based on the selected service, which in turn is defined by QoS attributes)*;

receiving a network address in accordance with the second request *(see paragraph 62, which recite a service agent SA1 that allocates IP addresses according to the DHCP request)*; and

sending the received network address to the requesting agent to establish the connection in accordance with the first request *(see paragraph 62, which recite sending a DHCP response that include the allocated IP addresses associated with the previously assigned MAC address)*.

Tonnby et al. disclose all the subject matter of the claimed invention with the exception wherein the QoS parameter of the first request specifically indicates one of a multimedia connection and a data connection and the second request for a network address specifically comprises retrieving the quality of service parameter from the first request; sending the second request for a first network address using the first MAC address if the quality of service parameter indicates a multimedia connection; and sending the second request for a second network address using the second MAC address if the quality of service parameter indicates a data connection. However, Krause et al. from the same or similar fields of endeavor discloses a network station

with multiple network addresses *(See abstract and column 4 lines 30-40)*. The station uses a separate, unique MAC address and data channel for multi-media connection including video and audio data *(see column 25 lines 25-60 and figures 15-16)*. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement the system for using a unique MAC address for multimedia data as taught by Krause et al. with the access system that requests a network address using the assigned MAC address as taught by Tonnby et al. By using a uniquely assigned MAC address for multimedia data, the request for a network address uses a first MAC address for multimedia connection or a second MAC address for other data connections. The motivation for implementing the network station that uses a separate, unique MAC address and data channel for multi-media connection as taught by Krause et al. with the access system as taught by Tonnby et al. is to improve the efficiency of the system by using data channels to multimedia modules to that reduces software overhead.

Tonnby et al. and Krause et al. disclose all the subject matter of the claimed invention with the exception wherein the method that allocates network addresses is implemented as a computer readable medium storing computer executable instructions for performing the address allocation. However, Chiang et al. from the same or similar fields of endeavor discloses a technique for dynamic address assignment and resolution *(see abstract)* wherein the dynamic address assignment is implemented as application software 412 implemented on memory *(see figure 4 and column 6 lines 22-31)*. Thus, it would have been obvious to the person of ordinary skill in the art at the time of the invention to implement the method for allocating network addresses by using a memory unit that is able to store executable instructions as taught by Chiang on the access system ACC1 as taught by Tonnby et al. and Krause et al. The motivation

for implementing the method for allocating network addresses memory unit that is able to store executable instructions is to improve the usability of the system by allowing for configuration changes without costly hardware modifications.

For claim 20, Tonnby et al. discloses an apparatus that allocates network addresses wherein the computer executable instructions defining the step of sending a second request comprise computer executable instructions defining the steps of: sending a dynamic host configuration protocol (DHCP) to a DHCP server *(see paragraph 62, which recite a service agent SA1 that receives a second request that comprises a DHCP request FR2 that uses the previously assigned MAC address SAMAC1 address to request an IP address for the client)* and receiving the network address from the DHCP server *(see paragraph 62, which recite a client that receives a DHCP response that includes it's allocated IP address IPUD11)*.

Response to Arguments

10. It is noted with appreciation that the Applicants have carefully considered the previous office action and the cited prior art references. It is further noted with appreciation that the Applicants initiated a telephone interview on March 2, 2010 to discuss the claim language as well as interpretations of the prior art. The examiner would like to thank the Applicants for the courtesies extended during the interview.

The Applicants' arguments filed on March 11th, 2010 have been fully considered but they are not persuasive. The Applicants first argue, "the quality of service in Tonnby does not disclose or suggest 'a quality of service parameter indicating one of a multimedia connection and a data connection' as recited in amended claim 1" *(please see Applicants' remarks, page 9)*. In

response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Specifically, the rejection of the limitation relies on the combination of Tonnby et al. in view of Krause et al.

The Applicants further argue, "the MAC address in Tonnby is not chosen based on the quality of service, as in the present claimed application" *(please see Applicants' remarks, page 10)*. However, in Tonnby, the user selects a service from the available service providers, and the administrative unit AD1 allocates a SAMAC address based upon the selected service *(see Tonnby et al., paragraphs 57 and 58)*. Further, the selected services are associated with bandwidth and QoS attributes *(see Tonnby et al., paragraph 102-106)*. Since the SAMAC is chosen based on the selected service, which in turn is defined by QoS attributes, the allocated SAMAC is chosen based on the quality of service as recited in the claim.

The Applicants further argue, "the DHCP server in Tonnby allocates IP addresses based on receiving a MAC address UMAC1 and a VLAN tag TAG 1. Tonnby recites '[t]he administrative unit dynamically allocates the unique service agent MAC address SAMAC1 to the service agent SA1 in a step 93' (paragraph [0078]). Although Tonnby may describe using a dynamically allocated MAC address of a service agent in the edge server, the selection of which MAC address to use is not based on a quality of service parameter that indicates a multimedia connection or a data connection, as recited in amended claim 1" *(please see Applicants' remarks, page 10)*. The Applicants refer to paragraph 78 of Tonnby et al., which describes the method of defining the service access relations as illustrated in figure 9. It is noted that paragraph 79 of

Tonnby et al. describes the subsequent method of building up the correspondence between IP addresses and MAC addresses as illustrated in figure 10. Specifically, the assigned SAMAC address, which was allocated based upon the requested service with specific QoS attributes as noted above, is used to locate the necessary service agent to complete the DCHP request. Thus, the DHCP request that uses the SAMAC address allocated based upon associated QoS attributes is interpreted as the second request for one of the plurality of network addresses using one of first and second MAC addresses as recited by the claim.

Finally, the Applicants argue, "a first MAC address is assigned for the main CPU module and a second MAC address is assigned for the multimedia module. Krause may describe two different modules; however, the decision of which module to use is not based on a quality of service parameter indicating a multimedia or data connection" *(please see Applicants' remarks, page 10)*. The Examiner respectfully disagrees with the Applicants' characterization of Krause. Specifically, it is noted that multimedia data for the multimedia module is supplied on line 828 and other data is supplied on line 829 *(see Krause et al., column 25 lines 51-61)*. The multimedia module handles multimedia data with its respective QoS and the main CPU handles other data with its respective QoS. That is, multimedia data with its respective QoS could not be handled by the main CPU, and other data with its respective QoS could not be handled by the multimedia module. Thus, contrary to the Applicants' assertions, the decision of which module to use is based on a quality of service parameter indicating a multimedia or data connection. By dividing the data between the MAC addresses associated with either the multimedia module or the main CPU, a first MAC address is used if the QoS indicates a multimedia connection, and a second MAC address is used if the QoS indicates a data connection as recited by the claim.

For the reasons provided above, the Applicant's arguments regarding independent claim 1 and similar arguments regarding the remaining independent claims are not persuasive. The Applicant further argues that the dependent claims are patentable by virtue of their dependencies of the argued independent claims. Since the Applicant's arguments regarding independent claims are not persuasive, the dependent claims have not been found to be allowable.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BEN H. LIU whose telephone number is (571)270-3118. The examiner can normally be reached on 9:00AM to 6:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on (571)272-3139. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ricky Ngo/
Supervisory Patent Examiner, Art Unit 2464

BL